

WHAT IS CLAIMED IS:

1. A photoconductive switch module comprising:  
a first substrate having light-emitting elements;  
a second substrate having photoconductive switch  
5 elements, whose number is equal to that of the light-  
emitting elements, the light-emitting elements and the  
photoconductive switch elements being arranged to face  
each other, the photoconductive switch elements being  
turned on/off in accordance with lighting/extinction of  
10 the light-emitting elements; and  
a third substrate arranged between the first  
substrate and the second substrate, the third substrate  
having through holes, whose number is equal to that of  
the light-emitting elements, each through hole being  
15 arranged between the light-emitting element and the  
photoconductive switch element facing each other, drive  
light emitted from each light-emitting element  
traveling to the photoconductive switch element via the  
through hole.
- 20 2. The photoconductive switch module according to  
claim 1, wherein the second substrate has a circuit  
wiring connected to the photoconductive switch elements  
on the side facing the third substrate, the third  
substrate has a concave portion extending along the  
25 circuit wiring, such that the through holes terminate  
on the bottom surface of the concave portion, and the  
third substrate has conductivity at least in the

vicinity of the surface of the concave portion.

3. The photoconductive switch module according to claim 2, wherein the third substrate further has a convex portion protruding from the bottom surface of the concave portion, and the convex portion has a height equal to or smaller than a depth of the concave portion.

4. The photoconductive switch module according to claim 3, wherein the convex portion is positioned between the photoconductive switch elements to be reversely turned on/off.

5. The photoconductive switch module according to claim 3, wherein the convex portion and the second substrate are spaced with a gap equal to or smaller than 100  $\mu\text{m}$ , and the convex portion has a thickness (dimension in a direction along which the concave portion extends) equal to or smaller than 100  $\mu\text{m}$ .

6. The photoconductive switch module according to claim 3, wherein a height of the convex portion is equal to a depth of the concave portion.

7. The photoconductive switch module according to claim 3, wherein a height of the convex portion is smaller than a depth of the concave portion.

8. The photoconductive switch module according to claim 3, wherein the convex portion surrounds the through hole.

9. A photoconductive switch module comprising:

a first substrate having light-emitting elements;

a second substrate having photoconductive switch elements, whose number is equal to that of the light-emitting elements, the light-emitting elements and the photoconductive switch elements being arranged to face each other, the photoconductive switch elements being turned on/off in accordance with lighting/extinction of the light-emitting elements; and

light isolation means for isolating the light between a pair of the light-emitting element and the photoconductive switch element from the light between another pair of the light-emitting element and the photoconductive switch element.

10. The photoconductive switch module according to claim 9, wherein the light isolation means comprises a third substrate arranged between the first substrate and the second substrate, the third substrate has through holes, whose number is equal to that of the light-emitting elements, each through hole is arranged between the light-emitting element and the photoconductive switch element facing each other, and drive light emitted from the light-emitting element travels to the photoconductive switch element via the through hole.

11. The photoconductive switch module according to claim 10, wherein the second substrate has a circuit wiring connected to the photoconductive switch elements

on the side facing the third substrate, and the photoconductive switch module further comprises electromagnetic shield means for the circuit wiring.

12. The photoconductive switch module according to  
5 claim 11, wherein the third substrate has a concave portion extending along the circuit wiring, such that the through holes terminate on the bottom surface of the concave portion, the third substrate has conductivity at least in the vicinity of the surface of  
10 the concave portion, and the conductive part in the vicinity of the surface of the concave portion constitutes the electromagnetic shield means.